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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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06/27/2001

John T. Chapman

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03/16/2006

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EXAMINER

TRAN, PHUC H

ART UNIT

PAPER NUMBER

2668

DATE MAILED: 03/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/894,958

Applicant(s)

CHAPMAN, JOHN T.

Examiner

PHUC H. TRAN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-30 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

This communication is in response to the applicant's response filed 12/28/05. Claims 1-30 are pending in the application. Detailed action is followed:

#### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Liva et al. (US 2002/0136203 A1).

- With respect to claims 1, and 23, Liva teaches a packet fiber node (Fig. 3A) for use in an access network (Fig. 2A), the access network including a Head End (e.g. the headend in Fig. 2A) and a plurality of nodes (e.g. nodes in Fig. 2A), the packet fiber node comprising: at least one processor (3B in Fig. 3A); memory (Fig. 3A);

a first interface for communicating with the Head End (e.g. O/E in Fig. 3A); and

a second interface for communicating with at least a portion of the plurality of network nodes (e.g. 3D in Fig. 3A);

the packet fiber node being configured or desired to communicate with the Head End using baseband optical signals (Fig. 4D and Fig. 14).

- With respect to claims 2, 11, and 24, Liva also teaches wherein the packet fiber node is not adapted to communicate with the Head End using frequency modulated optical signals (e.g. legacy analog fiber in Fig. 3A).

- With respect to claims 3, 12, 22, & b25, Liva further teaches wherein the packet fiber node is configured or designed to communicate with the Head End using only baseband optical signals (page 2, paragraph 0019).

- With respect to claims 4, 13, & 26, Liva teaches wherein the packet fiber node is further configured or desired to communicate with at least a portion of the cable modems using modulated electrical signals generated in accordance with a standardized DOCSIS protocol (e.g. mini CMTS in Fig. 3A).

- With respect to claims 5, 14, & 27, Liva teaches wherein the access network corresponds to a cable network implemented in accordance with a standardized DOCSIS protocol (page 2, paragraph 0017);

the packet fiber node being further configured or designed to perform functions relating to DOCSIS MAC scheduling operations (page 5, paragraph 75).

- With respect to claims 6, 15, & 28, Liva teaches wherein the access network corresponds to a cable network (page 1, paragraph 5); the packet fiber node being further

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configured or designed to handle layer 1 (page 6, paragraph 86) and layer 2 functionality (Fig. 5).

- With respect to claims 7, 16, and 19-21, Liva also teaches wherein the access network corresponds to a cable network (page 1, paragraph 5), and wherein the network nodes correspond to cable modems (page 1, paragraph 9), the cable network including a first RF fiber node (e.g. fiber nodes in Fig. 3) operable to communicate with the Head End using frequency modulated optical signals, the first RF fiber node further being adapted to service a first group of cable modems and a second group of cable modems (page 1, paragraph 6; page 5, paragraph 75, 76);

a same channel frequency to communicate with the Headend using frequency modulated optical signals (page 2, paragraph 23).

the cable network further including a first packet fiber node and a second packet fiber node, each packet fiber node being adapted to communicate with the Head End using baseband optical signals (Fig. 4D and Fig. 14);

the first packet fiber node being adapted to service the first group of cable modems; the second packet fiber node being adapted to service the second group of cable modems (e.g. groups in Fig. 2).

- With respect to claims 8-9, 17-18, and 29-30, Liva discloses the packet fiber node being further configured or designed to receive IP packets from a portion of the cable modems (Fig. 6, page 3, paragraph 28); and wherein the packet fiber node is further configured or designed to transmit the received IP packets to the Head End using a tunneling protocol (page 3, paragraph 25).

- With respect to claim 10, Liva teaches a packet fiber node for use in an access network, the access network including a Head End and a plurality of nodes, the packet fiber node comprising: a diplexor (Fig. 3D); at least one interface (e.g. O/E in Fig. 3A); and a distributed cable modem termination system (DCMTS), the DCMTS being configured to communicate with the Head End using baseband optical signals (e.g. mini CMTS in Fig. 3A); wherein the packet fiber node is adapted to communicate with the Head End using frequency modulated optical signals (Fig. 4D and Fig. 14).

***Response to Amendment***

3. Applicant's arguments filed 12/28/2005 have been fully considered but they are not persuasive.

- In response to Applicant's argument that "Liva fails to teach or suggest mechanisms for a fiber node to communicate with the HeadEnd using baseband optical signals that are received at the packet fiber node from the HeadEnd and transmitted to the HeadEnd by the packet fiber node. Examiner respectfully disagrees. In Fig. 3A of Liva, the Packet Fiber was transmitted and received from/to the Secondary Hub or the HeadEnd. Therefore, Liva teaches the steps of transmitting and receiving the signals of the HeadEnd.
- In response to Applicant's argument that "Liva fails to teach or suggest using a same channel frequency to communicate with the different cable modem groups". Examiner respectfully disagrees. Liva teaches the FDM to transmit signals from Headend to Fiber nodes, therefore groups receive information at the same channel.

***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **PHUC H. TRAN** whose telephone number is (571) 272-3172. The examiner can normally be reached on M-F (8-4:30).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **CHI PHAM** can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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P.t  
3/8/06

  
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